REMARKS

Claims 1 through 32 were presented for examination and were rejected. The applicants respectfully traverse the rejections and request reconsideration in light of the following comments.

Objection to the Specification

The specification was objected to because the serial number of the co-pending applications was missing in paragraphs [0001] and [0061]. The specification has been amended accordingly, and, therefore, the applicants respectfully submit that the objection is overcome.

35 U.S.C. 112 Rejection of Claims 1, 8, 15, and 24

Claims 1, 8, 15, and 24 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. In particular, the Office action asserts that it is unclear How and When occasionally or under What condition the integer will be greater than one. The applicants respectfully traverse the rejection.

In order to comply with 35 U.S.C. 112, second paragraph, the claims do not need to specify how, when or under what conditions the integer will be greater than one. Such a detail describes the invention. In contrast, 35 U.S.C. 112, second paragraph, requires that the applicant define the invention, and there is no vagueness or ambiguity in the scope of the claim as it currently reads. Therefore, the applicants respectfully submit that the rejection is traversed.

The Office action states:

> The term "occasionally" in claims 1, 8, 15, 24 are used by the claim to mean "parallel or concurrently request" or "the threshold for at least two requests", while the accepted meaning is "an integer at least occasionally greater than one." The term is indefinite because the specification does not clearly redefine the term.

The applicants respectfully disagree.

The meaning of the term "occasionally" in the claims is the same as its ordinary meaning: "now and then," "from time to time," "sometimes," *etc.* The applicants have not exercised their right to be their own lexicographer.

Contrary to the contention of the Office, the term "occasionally" does not mean "parallel or concurrently request" or "the threshold for at least two requests." Furthermore,

and again contrary to the contention of the Office, the term "occasionally" does not mean "an integer at least occasionally greater than one."

For these reasons, the applicants respectfully submit that the rejection is traversed.

35 U.S.C. 103 Rejection of Claims 1-32

Claims 1 through 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over "Directory Algorithm for Communication Peer Networks", IBM Technical Disclosure Bulletin, published March 1989 (hereinafter "IBM") in view of E.A. Melton et al., U.S. Patent 5,133,061 (hereinafter "Melton"). The applicants respectfully traverse the rejection.

Claim 1 recites:

> **1.** A method comprising:
>
> populating a cache with a resource only when at least *i* requests for said resource have been received;
>
> *wherein i is an integer and is at least occasionally greater than one.*
>
> (*emphasis supplied*)

Nowhere does IBM or Melton teach or suggest, alone or in combination with the other references, what claim 1 recites – namely populating a cache with a resource only when at least *i* requests for the resource have been received, and wherein *i is at least occasionally greater than one.* ***The cited permutation mechanism in Melton relates to how the cache is organized, not to when it is populated with a resource***. Melton states:

> Since a cache can contain thousands of lines, in order to reduce its search time, very often it is logically organized in a two-dimensional storage of rows and columns. In such a case, cache accesses are memory mapped, a consecutive segment of data from the memory that makes up a cache line is assigned uniquely to a row and each row has its own independent logic for controlling the line replacement. These rows, which are called congruence classes, allow any cache line to be accessed in a fixed amount of time. The disadvantage is when the congruence classes are not evenly utilized as a result of poor spatial locality of any running program, the hit ratio of a program can be decreased substantially. This is very likely a result of two factors. First, the number of congruence classes in a cache is always in the power of two, e.g., 128. Second, a running program usually accesses its data in a stride of a multiple of two, if not consecutive. These two factors can cause a small subset of the congruence classes in a cache to be heavily used while many others are unused. ***The purpose of the present invention is to alleviate such a problem.***
>
> (***emphasis supplied***)

For this reason, the applicants respectfully submit that the rejection of claim 1 is traversed.

Because claims 2 through 7 depend on claim 1, the applicants respectfully submit that the rejection of them is also traversed.

Claim 8 recites:

> **8.** A data processing system comprising:
>
> a cache for storing a resource; and
>
> a processor for populating said cache with said resource only when at least *i* requests for said resource have been received;
>
> wherein *i* is an integer and is at least occasionally greater than one.
>
> (*emphasis supplied*)

For the same reasons as those given with respect to claim 1, nowhere does IBM or Melton teach or suggest, alone or in combination with the other references, what claim 8 recites – namely populating a cache with a resource only when at least *i* requests for the resource have been received, and wherein *i is at least occasionally greater than one*.

Because claims 9 through 14 depend on claim 8, the applicants respectfully submit that the rejection of them is also traversed.

Claim 15 recites:

> **15.** A method comprising:
>
> receiving at a first node in a computer network at least one request for a resource;
>
> retrieving said resource from a second node in said computer network; and
>
> populating a cache in said first node with said resource only when at least *i* requests for said resource have been received at said first node;
>
> wherein *i* is an integer and is at least occasionally greater than one.
>
> (*emphasis supplied*)

For the same reasons as those given with respect to claim 1, nowhere does IBM or Melton teach or suggest, alone or in combination with the other references, what claim 15 recites – namely populating a cache with a resource only when at least *i* requests for the resource have been received, and wherein *i is at least occasionally greater than one*.

Because claims 16 through 23 depend on claim 15, the applicants respectfully submit that the rejection of them is also traversed.

Claim 24 recites:

> **24.** A first node in a computer network, said first node comprising:
>
> a cache;
>
> at least one receiver for receiving at least one request for a resource; and
>
> a processor for retrieving said resource from a second node in said computer network, and for populating said cache in said first node with said resource only when at least *i* requests for said resource have been received at said first node;
>
> wherein *i* is an integer and is at least occasionally greater than one.
>
> (*emphasis supplied*)

For the same reasons as those given with respect to claim 1, nowhere does IBM or Melton teach or suggest, alone or in combination with the other references, what claim 24 recites – namely populating a cache with a resource only when at least *i* requests for the resource have been received, and wherein *i is at least occasionally greater than one*.

Because claims 26 through 32 depend on claim 24, the applicants respectfully submit that the rejection of them is also traversed.

35 U.S.C. 103 Rejection of Claims 1-32

Claims 1 through 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over A.R. Desai, U.S. Patent 6,434,608 (hereinafter "Desai") in view of D. Gaskins et al., U.S. Patent 5,809,562 (hereinafter "Gaskins"). The applicants respectfully traverse the rejection.

Claim 1 recites:

> **1.** A method comprising:
>
> populating a cache with a resource only when at least *i* requests for said resource have been received;
>
> *wherein i is an integer and is at least occasionally greater than one.*
>
> (*emphasis supplied*)

Nowhere does Desai or Gaskins teach or suggest, alone or in combination with the other references, what claim 1 recites – namely populating a cache with a resource only when at least *i* requests for the resource have been received, and wherein *i is at least occasionally greater than one*.

The Office action cites:

> Gaskins taught a cache populates with a high speed SRAM resource [col 7 lines 34-46] wherein the cache memory of ***size*** N*M is an integer having a value greater than 1.
>
> (emphasis supplied)

The applicant agrees – and respectfully asserts that it is irrelevant to the issue at hand. ***The size of the cache memory is not relevant to the issue of how many requests for a resource must occur before the cache is populated with the resource.*** There is simply nothing in any of the references that teaches or suggests the claimed limitations for when the cache is populated.

For this reason, the applicants respectfully submit that the rejection of claim 1 is traversed.

Because claims 2 through 7 depend on claim 1, the applicants respectfully submit that the rejection of them is also traversed.

Claim 8 recites:

> **8.** A data processing system comprising:
>
> a cache for storing a resource; and
>
> a processor for populating said cache with said resource only when at least *i* requests for said resource have been received;
>
> wherein *i* is an integer and is at least occasionally greater than one.
>
> (*emphasis supplied*)

For the same reasons as those given with respect to claim 1, nowhere does Desai or Gaskins teach or suggest, alone or in combination with the other references, what claim 8 recites – namely populating a cache with a resource only when at least *i* requests for the resource have been received, and wherein *i is at least occasionally greater than one*.

Because claims 9 through 14 depend on claim 8, the applicants respectfully submit that the rejection of them is also traversed.

Claim 15 recites:

> **15.** A method comprising:
>
> receiving at a first node in a computer network at least one request for a resource;
>
> retrieving said resource from a second node in said computer network; and

> populating a cache in said first node with said resource only when at least *i* requests for said resource have been received at said first node;
>
> wherein *i* is an integer and is at least occasionally greater than one.
>
> (*emphasis supplied*)

For the same reasons as those given with respect to claim 1, nowhere does Desai or Gaskins teach or suggest, alone or in combination with the other references, what claim 15 recites – namely populating a cache with a resource only when at least *i* requests for the resource have been received, and wherein *i is at least occasionally greater than one.*

Because claims 16 through 23 depend on claim 15, the applicants respectfully submit that the rejection of them is also traversed.

Claim 24 recites:

> **24.** A first node in a computer network, said first node comprising:
>
> a cache;
>
> at least one receiver for receiving at least one request for a resource; and
>
> a processor for retrieving said resource from a second node in said computer network, and for populating said cache in said first node with said resource only when at least *i* requests for said resource have been received at said first node;
>
> wherein *i* is an integer and is at least occasionally greater than one.
>
> (*emphasis supplied*)

For the same reasons as those given with respect to claim 1, nowhere does Desai or Gaskins teach or suggest, alone or in combination with the other references, what claim 24 recites – namely populating a cache with a resource only when at least *i* requests for the resource have been received, and wherein *i is at least occasionally greater than one.*

Because claims 26 through 32 depend on claim 24, the applicants respectfully submit that the rejection of them is also traversed.

Request for Reconsideration Pursuant to 37 C.F.R. 1.111

Having responded to each and every ground for objection and rejection in the Office action mailed June 27, 2005, applicants request reconsideration of the instant application pursuant to 37 CFR 1.111 and request that the Examiner allow all of the pending claims and pass the application to issue.

Should there remain unresolved issues the applicants respectfully request that Examiner telephone the applicants' attorney at 732-578-0103 x11 so that those issues can be resolved as quickly as possible.

Respectfully,
DeMont & Breyer, LLC

By _____
Jason Paul DeMont
Reg. No. 35793
Attorney for Applicants
732-578-0103 x11

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DeMont & Breyer, L.L.C.
Suite 250
100 Commons Way
Holmdel, NJ 07733
United States of America